

FIG. 1A

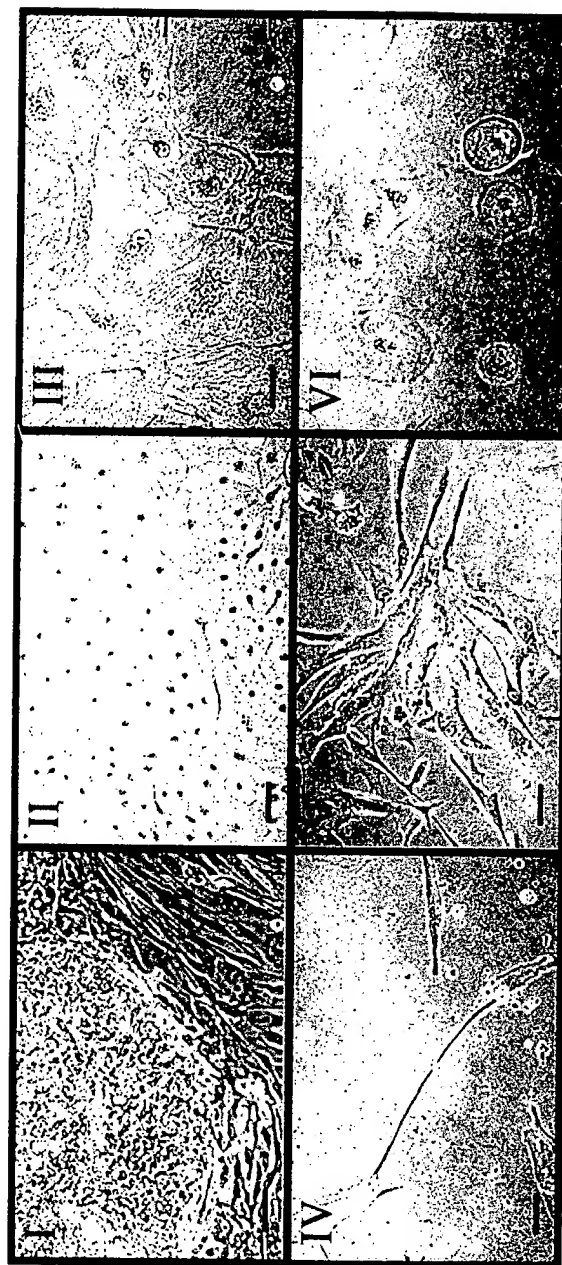


FIG. 1B

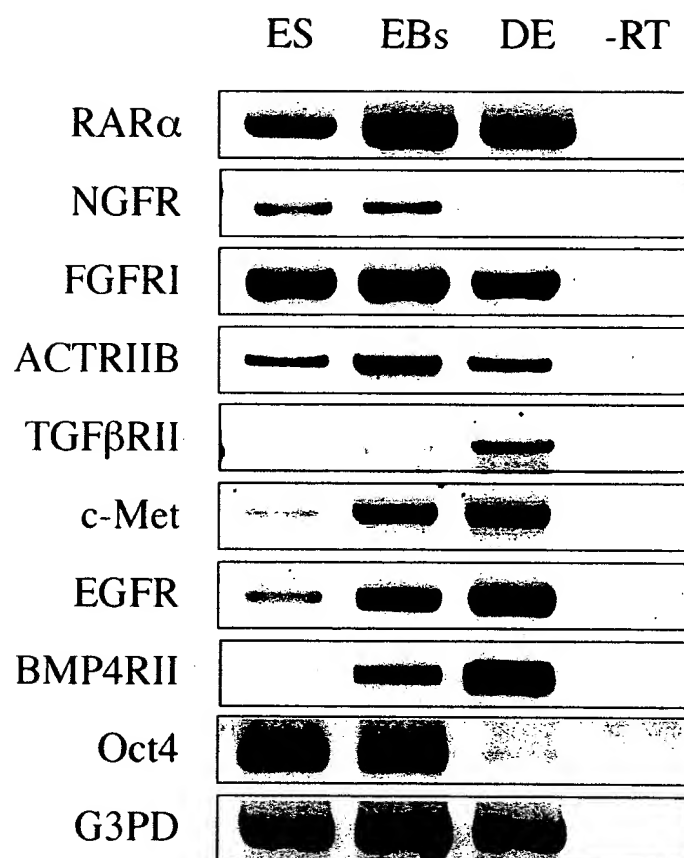


FIG. 2

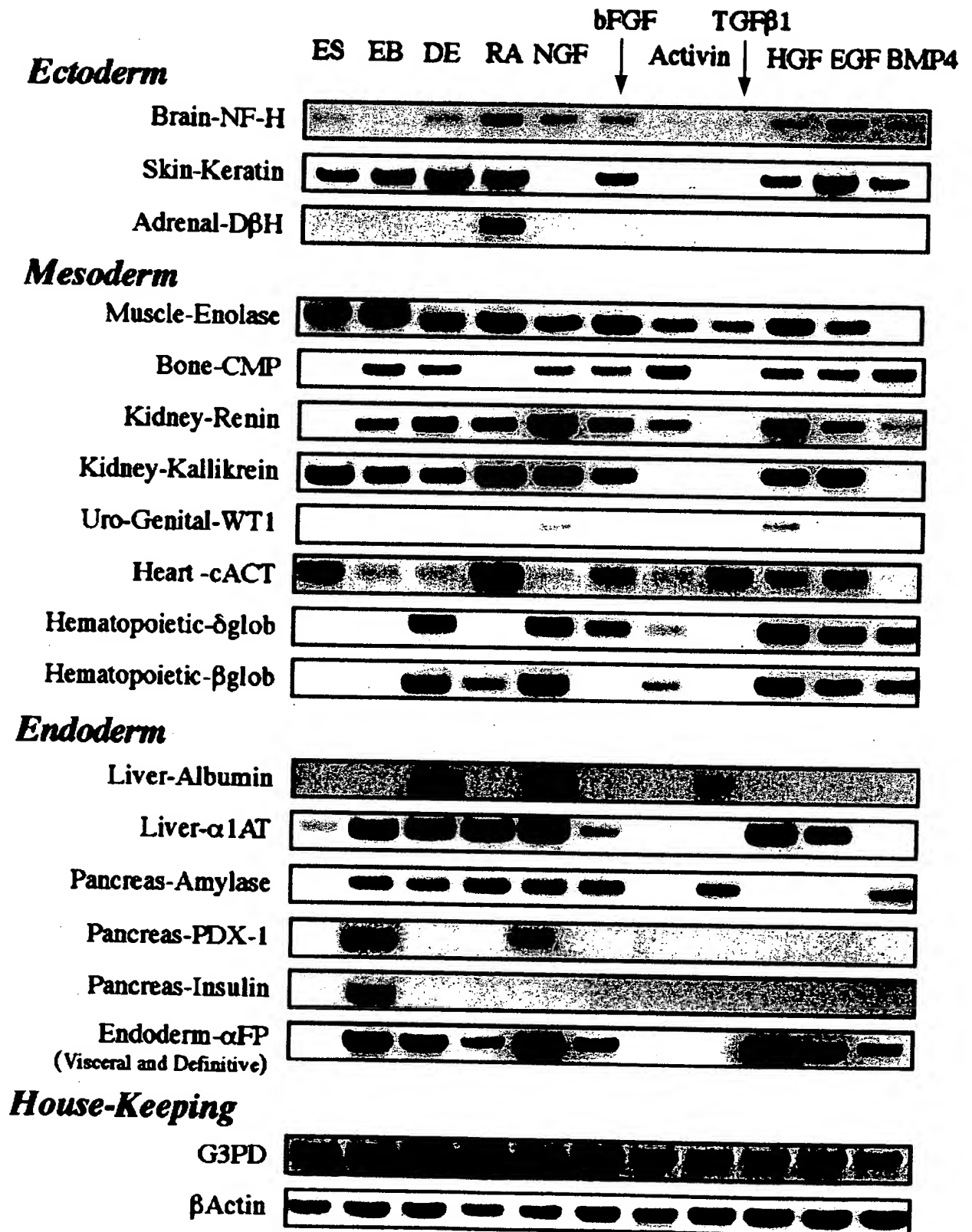


FIG. 3A

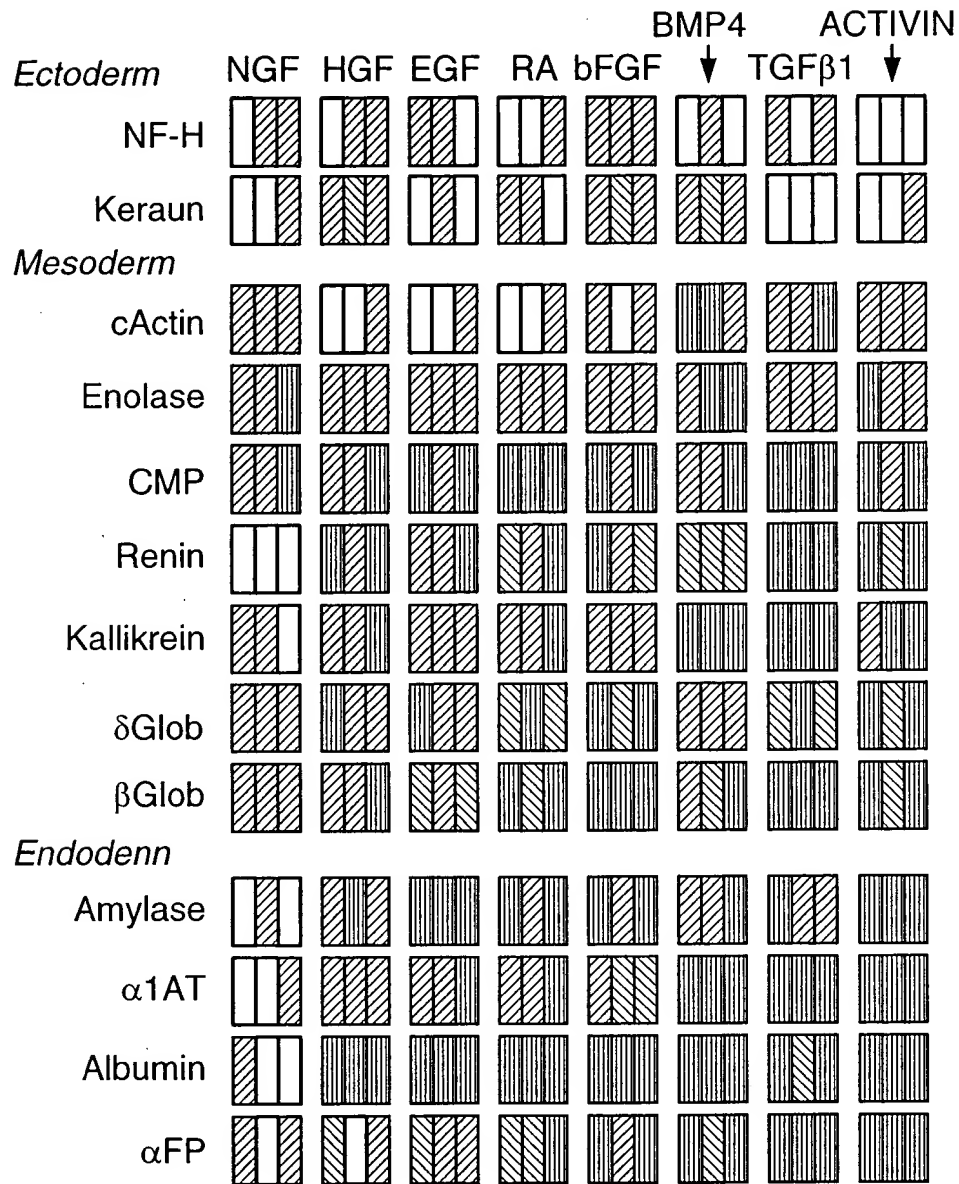
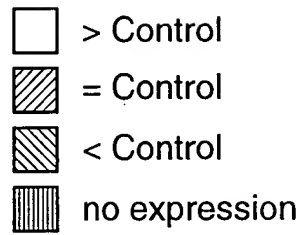
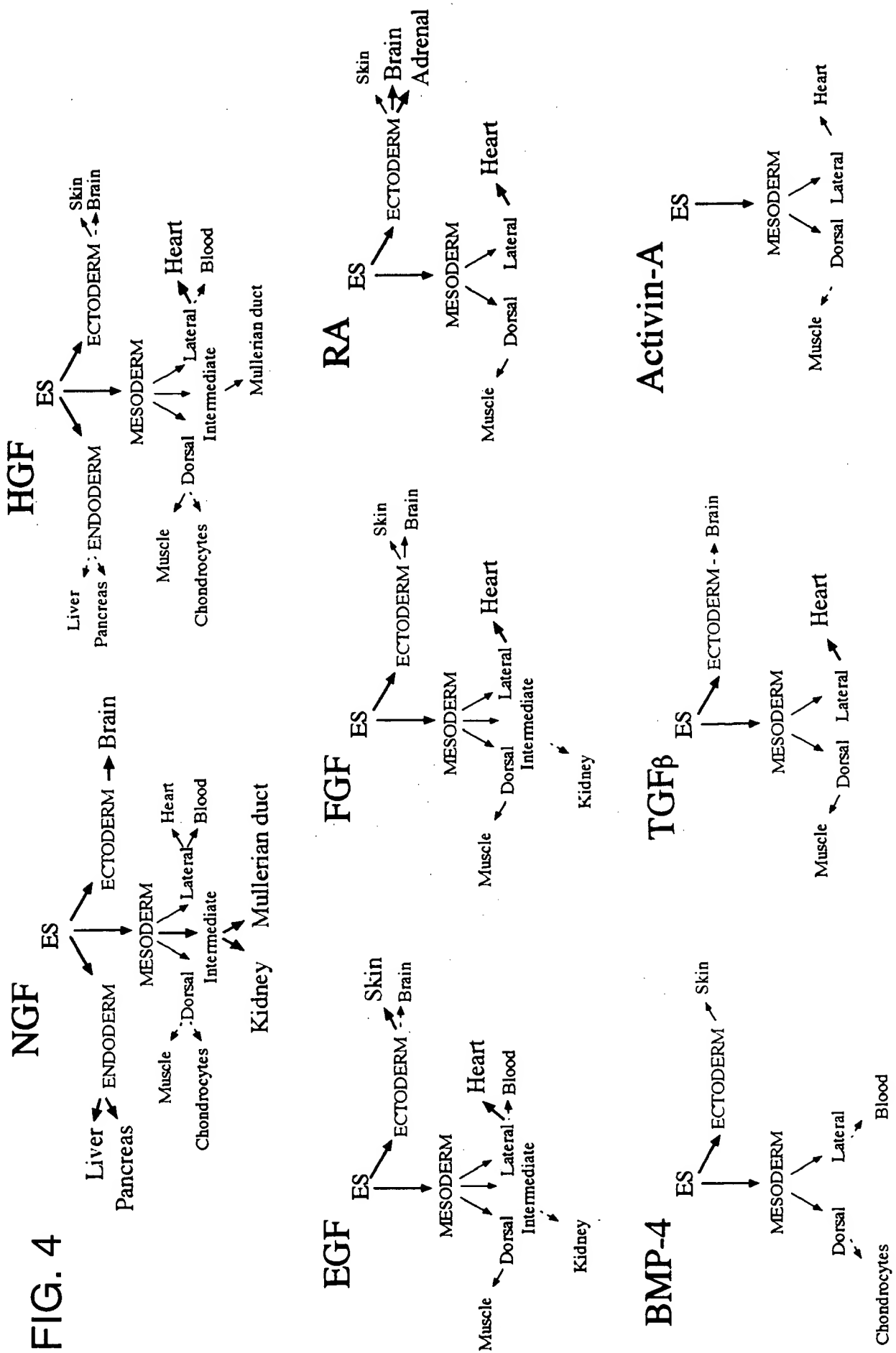


FIG. 3B

FIG. 4



Gene	Expected Product	5' Primer	3' Primer
$\alpha$ -feto protein ( $\alpha$ FP)	680bp	AGAACCTGTACAAGCTGTG	CTGAGGATGTC
$\alpha$ 1 anti-trypsin ( $\alpha$ 1AT)	360bp	AGACCCCTTTGAAGTCAAGGACACCG	CCATTGCTGAAGACCTTAGTGATGC
Activin Receptor type IIB (ACTRIIB)	550bp	ACACGGGAGTGTCATCTACTACAACG	TTCATGAGCTGGGCTTCCAGACAC
Albumin	450bp	CCTTGGCACAAATGAAGTGGTAACC	andCAGCAGTCAGCCATTTACCATAGG
Amylase	490bp	GCTGGGCTCAGTATTCGCCAAATAC	GACGACAATCTCTGACCTGAGTAGC
B-Actin	400bp	TGGCACACACCTTCTACAATGAGC	GCACAGCTTCTCCTTAATGTCACGC
$\beta$ -Globin ( $\beta$ -Glob)	410bp	ACCTGACTCCTGAGGAGAAGTCTGC	TAGCCACACCAGCCACCACCTTTCTG
Bone Morphogenic Protein 4 Receptor type II (BMP4RII)	800bp	TCTGCAGCTAGTCTCTCTCATCAGC	TATACTGCTCCATATCGACCTCGGC
Cardiac Actin (cACT)	630bp	TCTATGAGGGCTACGCTTTG	CCTGACTGGAAGGTAGATGG
Cartilage Matrix Protein (OMP)	620bp	ATGACTGTGAGCAGGTGTGCATCAG	CTGGTTGATGGTCTTGAAGTCAGCC
$\delta$ -Globin ( $\delta$ -Glob)	430bp	ACCATGGTGTCATCTGACTCCTGAGG	ACTTGTGAGCCAAAGGCATTAGCCAC
Dopamine $\beta$ Hydroxylase ( $D\beta$ H)	440bp	CACGTAAGTGGTCTACATTAAGGAGC	AATGGCCATCACTGGCGTGTACACC
Enolase	490bp	TGACTTCAAGTCGCCTGATGATCCC	TGCGTCCAGCAAGATTGCCTTGTC
Epidermal Growth Factor Receptor type (EGFR)	300bp	CAGTCGTCAGCCTGAACATAACATOC	AGGTTGCACTTGTCCACGCAATCC
Fibroblast Growth Factor Receptor type I (FGFR1)	410bp	AGCATCATAATGGACTCTGTGGTGCC	AGTCCGATAGAGTTACCCGCCAAGC
Follicular Stimulating Hormone (FSH)	320bp	GTGAGCTGACCAACATCACCATTGC	TTTCACCAAGGAGCAGTAGCTGGG
Glucagon	370bp	CTCAGTGATCCTGATCAGATGAACG	AGTCCCTGGCGGCAAGATTATCAAG
Glyceraldehyde 3-phosphate dehydrogenase (G3PD)	890bp	TGAAGGTCGGAGTCAACGGATTGGT	CATGTGGGCCCATGAGGTCCACCAC
Hepatocyte Growth Factor Receptor (c-Met)	440bp	AGAAATTCATCAGGCTGTGAAGCGCG	TTCTCCGATCGCACACATTTGTGCG

FIG. 5A

FIG. 5A	FIG. 5C
FIG. 5B	FIG. 5D

FIG. 5

Insulin	420bp	CTGCATCAGAAGAGGCCATCAAGC	GGCTTTATTCCATCTCTCTCGGTGC
Katilkrein	480bp	GTTCATGTCAGTGAGAGCTTCCCAC	TCACATAAGACAGCACTCTGACGGC
Keratin	780bp	AGGAAATCATCTCAGGAGGAAGGC	AAAGCACAGATCTTCGGGAGCTACC
Lipase	400bp	GATTCATCAAGCATCAGTGGCTCC	CCAATCGGACTAATTCAGGTGTGCC
Myosin light polypeptide2 (myosin)	400bp	TCCAACGTGTTCTCCATGTTCAAC	CTTGAGTCCAAGTTGCCAGTCACG
Nerve Growth Factor Receptor (NGFR)	410bp	TGTTCTCCTGCCAGGACAAGCAGAAC	TCTTGAAGGCTATGTAGGCCACAAGG
Neurofilament Heavy Chain (NFH)	400bp	TGAACACAGACGCTATGCGCTCAG	CACCTTTATGTGAGTGACACACAGAG
Octamer Binding Protein 4 (Oct4)	140bp	CGPGAAAGCTGGAGAAGGAGAAGCTG	CAAGGGCCGCAGCTTACACATGTTT
Parathyroid Hormone (PTH)	290bp	GGCTAAAGTTATGATTGTCATGTTGGC	TCAGCTTTGTCTGCCTCTCCAAGAC
PDX-1	230bp	GGATGAAGTCTACCAAGCTCACGC	CCAGATCTTGATGTGTCTCTCGGCT
Phosphoprotein enriched in astrocytes(PEA-15)	820bp	AGAGTGAGGAGATCACTACTGGCAG	ACCTGCTGGTACTCAGGAAACAGTC
Renin	590bp	AGTCGTCTTTGACACTGGTTGCTCC	GGTAGAACCTGAGATGTAGGATGC
Retinoic Acid Receptor type alpha (RAR)	500bp	AGCAGCAGTTCTGAAGAGATAGTGCC	GTGGAGAGTTCACTGAACTTGTC
Surfactant	460bp	TCCAGCTCATCTAGATGAGGAGCTC	GTCCCATGGCCTAAATGCCCTCTCAG
Transforming Growth Factor Receptor type II (TGFR II)	530bp	TAGTCACTGACAAACAACGGTGCAGTC	ACAGTGCTCGCTGAACTCCATGAGC
WT1	450bp	TCCTTCATCAAAACAGGAGCCGAGC	CTGTAGGGCGTCTCTCAGCAGCAAAG

FIG. 5B

Gene	5' Primer	3' Primer
$\alpha$ -feto protein ( $\alpha$ FP)	SEQ ID NO: 4	SEQ ID NO: 5
$\alpha$ 1 anti-trypsin ( $\alpha$ 1AT)	SEQ ID NO: 6	SEQ ID NO: 7
Activin Receptor type IIB (ACTRIIB)	SEQ ID NO: 8	SEQ ID NO: 9
Albumin	SEQ ID NO: 10	SEQ ID NO: 11
Amylase	SEQ ID NO: 12	SEQ ID NO: 13
B-Actin	SEQ ID NO: 14	SEQ ID NO: 15
$\beta$ -Globin ( $\beta$ -Glob)	SEQ ID NO: 16	SEQ ID NO: 17
Bone Morphogenic Protein 4 Receptor type II (BMP4RII)	SEQ ID NO: 18	SEQ ID NO: 19
Cardiac Actin (cACT)	SEQ ID NO: 20	SEQ ID NO: 21
Cartilage Matrix Protein (OMP)	SEQ ID NO: 22	SEQ ID NO: 23
$\delta$ -Globin ( $\delta$ -Glob)	SEQ ID NO: 24	SEQ ID NO: 25
Dopamine $\beta$ Hydroxylase (D $\beta$ H)	SEQ ID NO: 26	SEQ ID NO: 27
Enolase	SEQ ID NO: 28	SEQ ID NO: 29
Epidermal Growth Factor Receptor type (EGFR)	SEQ ID NO: 30	SEQ ID NO: 31
Fibroblast Growth Factor Receptor type I (FGFRI)	SEQ ID NO: 32	SEQ ID NO: 33
Follicular Stimulating Hormone (FSH)	SEQ ID NO: 34	SEQ ID NO: 35
Glucagon	SEQ ID NO: 36	SEQ ID NO: 37
Glyceraldehyde 3-phosphate dehydrogenase (G3PD)	SEQ ID NO: 38	SEQ ID NO: 39
Hepatocyte Growth Factor Receptor (c-Met)	SEQ ID NO: 40	SEQ ID NO: 41

FIG. 5C



Insulin	SEQ ID NO: 42	SEQ ID NO: 43
Kalikrein	SEQ ID NO: 44	SEQ ID NO: 45
Keratin	SEQ ID NO: 46	SEQ ID NO: 47
Lipase	SEQ ID NO: 48	SEQ ID NO: 49
Myosin light polypeptide2 (myosin)	SEQ ID NO: 50	SEQ ID NO: 51
Nerve Growth Factor Receptor (NGFR)	SEQ ID NO: 52	SEQ ID NO: 53
Neurofilament Heavy Chain (NFH)	SEQ ID NO: 54	SEQ ID NO: 55
Octamer Binding Protein 4 (Oct4)	SEQ ID NO: 56	SEQ ID NO: 57
Parathyroid Hormone (PTH)	SEQ ID NO: 58	SEQ ID NO: 59
PDX-1	SEQ ID NO: 60	SEQ ID NO: 61
Phosphoprotein enriched in astrocytes(PEA-15)	SEQ ID NO: 62	SEQ ID NO: 63
Renin	SEQ ID NO: 64	SEQ ID NO: 65
Retinoic Acid Receptor type alpha (RAR)	SEQ ID NO: 66	SEQ ID NO: 67
Surfactant	SEQ ID NO: 68	SEQ ID NO: 69
Transforming Growth Factor Receptor type II (TGFR II)	SEQ ID NO: 70	SEQ ID NO: 71
WT1	SEQ ID NO: 72	SEQ ID NO: 73

FIG. 5D

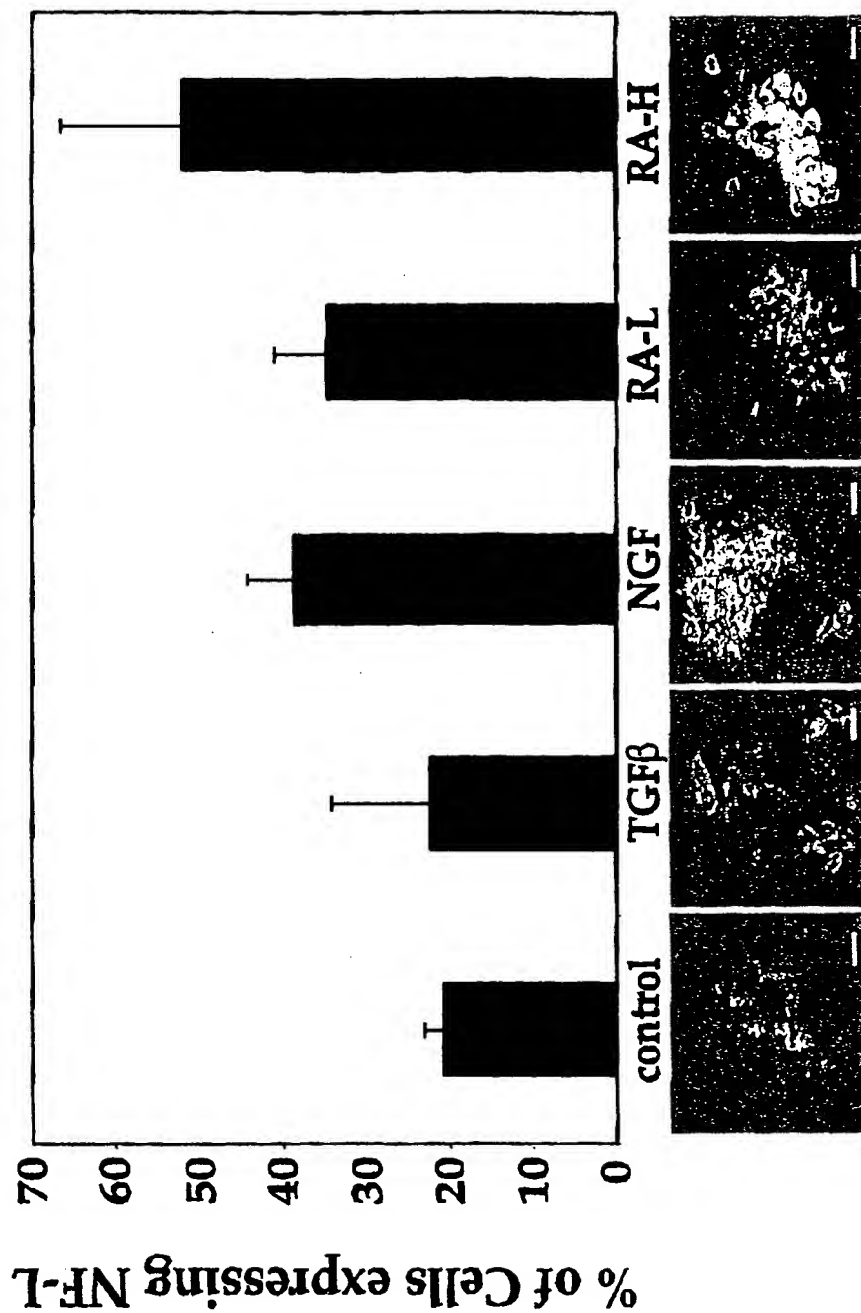


FIG. 6

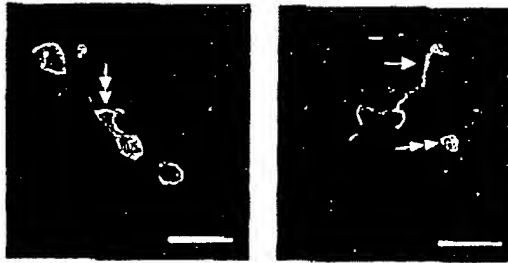


FIG. 7A

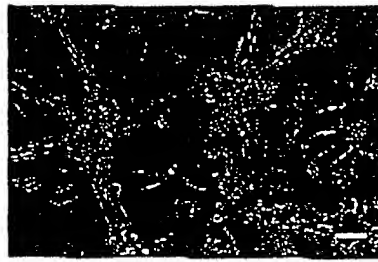


FIG. 7B

Low  
Complexity



Medium  
Complexity



High  
Complexity



FIG. 7C

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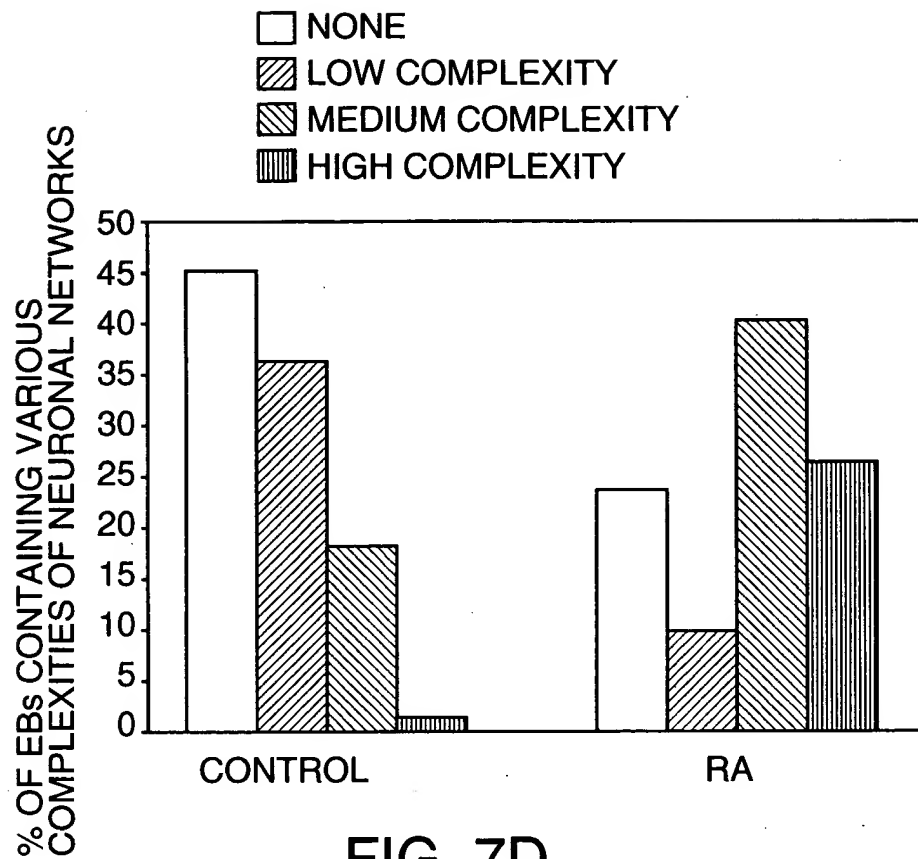


FIG. 7D

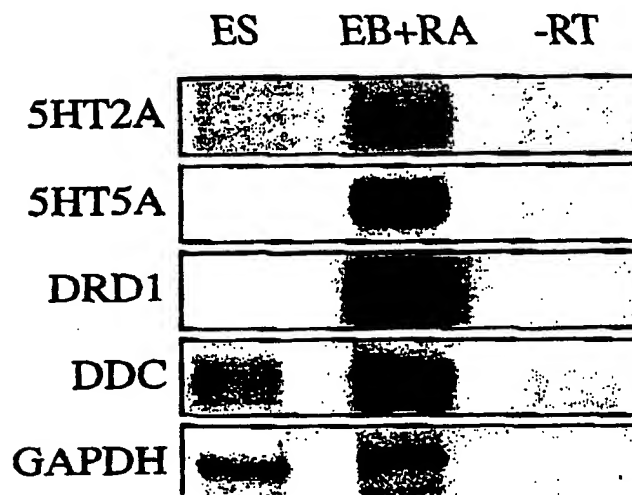


FIG. 8